

AN/TPS-59(V)3 Radar System



Description

The AN/TPS-59(V)3 radar system is the Marine Corps' only long-range, 3-D, air surveillance, Tactical Ballistic Missile (TBM) capable radar. The AN/TPS-59(V)3 radar system is a transportable, solid-state, L-band radar. It is the MAGTF's principal air surveillance radar and is integrated into the AN/TYQ-23(V)4 Tactical Air Operations Module (TAOM). It may also be configured for operation with the AN/MSQ-124 Air Defense Communications Platform (ADCP) to provide TBM track data to the Joint Tactical Information Distribution System. The radar has also become a key component in the employment of the Navy's Cooperative Engagement Capability (CEC) and is the Marine Corps' lead sensor in the development of the Composite Tracking Network (CTN).

Operational Impact

The AN/TPS-59(V)3 is optimized to detect and track tactical ballistic missiles (TBMs) and air-breathing targets (ABTs), either of which can be a serious threat to

MAGTF operations. The AN/TPS-59(V)3 will primarily be used to support MAGTF aviation during sustained operations ashore, as part of a joint theater air and missile defense architecture. The radar supports the MAGTF commander in Anti-Air Warfare (AAW) operations with en route traffic control to a distance of 300 nautical miles (nmi) and TBM surveillance to 400 nmi. Eight (8) of the eleven (11) AN/TPS-59(V)3 radar systems were deployed during Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF), with five (5) deployed in direct support.

Program Status

Research and development efforts have produced engineering change proposals to replace obsolete hardware and software improvements, which ensure that the AN/TPS-59(V)3 remains a viable sensor throughout its planned service life. Implementation of these changes began in FY 2003. Additionally, the Marine Corps is pursuing a 3-D, long-range sensor replacement capability for the AN/TPS-59(V)3 that is still capable of engaging air-breathing and TBM targets, but which possesses a vastly reduced footprint and improved mobility. Initial operational capability of the upgraded radar is scheduled for FY 2012.

Procurement Profile: FY 05 FY 06

Quantity: various various

Developer/Manufacturer:
Lockheed Martin Corporation, Syracuse, NY